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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,809	08/21/2003	Koichi Okawa	241754US90	6183
22850	7590	11/30/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, HUY D	
			ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/644,809	Applicant(s) OKAWA ET AL.	
	Examiner Huy D. Nguyen	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/16/2005 have been fully considered but they are not persuasive.

Regarding claims 1, 6, and 7, the applicants submitted that Katz does not disclose whether or not a mobile station is capable of receiving a directional beam. The examiner responds that a mobile station is capable of receiving a directional beam when the mobile station is within the range of the directional beam and is incapable of receiving a directional beam when the mobile station is not within the range of the directional beam (see figures 3A and 3B). When the mobile station is not within the range of the directional beam (figure 3B), the mobile station cannot receive information/data from that beam and the beam width has to be increased in order to ensure communications connectivity. To an extreme, the directional beam can become omnidirectional (see paragraphs [0060], [0063], [0064]).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 6, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Katz (US 2001/0024173).

Regarding claims 1, 6, and 7, Katz teaches a base station (e.g., base station 100) comprising: a directional antenna (see paragraph [0024]) configured to transmit a directional beam to a mobile station; an omnidirectional antenna (see paragraph [0030]) configured to transmit an omnidirectional beam to the mobile station; and an antenna controller configured to determine whether or not the mobile station is capable of receiving the directional beam, and select the directional antenna as an antenna for transmitting individual data in a case of being capable of receiving the directional beam (see paragraphs [0047], [0048], [0052]), or select the omnidirectional antenna as an antenna for transmitting the individual data in a case of being incapable of receiving the directional beam (see paragraph [0060]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katz in view of Drews et al. (US 2003/0202494).

Regarding claim 2, Katz teaches the base station of claim 1 except that the antenna controller determines whether transmitted-data to the mobile station is the individual data or common data, and in a case of the common data, selects the omnidirectional antenna as an antenna for transmitting the common data.

However, the preceding limitation is taught in Drews et al. (see paragraph [0028]).

It would have been obvious to one having ordinary skill in the art, at the time of the invention, to apply the teaching of Drews et al. to the teaching of Katz in order to improve system capacity and links quality.

6. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz in view of Hottinen et al. (US 2002/0012380).

Regarding claim 3, Katz teaches the base station of claim 1 except a plurality of omnidirectional antennas configured to transmit omnidirectional beams to the mobile station.

However, the preceding limitation is taught in Hottinen et al. (see paragraph [0081]).

It would have been obvious to one having ordinary skill in the art, at the time of the invention, to apply the teaching of Hottinen et al. to the teaching of Katz in order to minimize errors in closed loop control in signaling from a base station to user equipment since the errors do not significantly deteriorate the capacity of the system.

Regarding claim 4, Katz teaches the base station of claim 1 except a transmit diversity controller configured to control transmit diversity by using the plurality of omnidirectional antennas.

However, the preceding limitation is taught in Hottinen et al. (see paragraph [0005], [0024]).

It would have been obvious to one having ordinary skill in the art, at the time of the invention, to apply the teaching of Hottinen et al. to the teaching of Katz in order to minimize errors in closed loop control in signaling from a base station to user equipment since the errors do not significantly deteriorate the capacity of the system.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katz in view of Bruckert et al. (U.S. 6,023,615).

Regarding claim 5, Katz teaches base station of claim 1 except a diversity reception controller configured to control antenna diversity reception of signals from the mobile station.

However, the preceding limitation is taught in Bruckert et al. (see column 4, lines 36-47).

It would have been obvious to one having ordinary skill in the art, at the time of the invention, to apply the teaching of Bruckert et al. to the teaching of Katz in order to improve the received signal quality.

Allowable Subject Matter

7. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 8-10, the cited prior arts, either alone or in combination, fail to teach or suggest the base station of claim 1, wherein the antenna controller is configured to transmit a update instruction signal to the mobile station and to receive a signal including mobile station information from the mobile station indicating whether the mobile station is capable of receiving the directional beam or incapable of receiving the directional beam, to store the mobile station information, and to determine whether or not the mobile station is capable of receiving the directional beam based on the mobile station information.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D. Nguyen whose telephone number is 571-272-7845. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HN

Huy Nguyen


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER